

A Friend Indeed

Creating the air we breathe

Algae have been on Earth for more than 1.6 billion years. Early algae existed when there was hardly any oxygen in the air. Over time, they produced so much oxygen waste that it changed the atmosphere. They put enough oxygen into the air that animals and people could breathe. Without algae, none of us would be here.

Plants also produce oxygen. But algae were producing oxygen more than a billion years before plants even existed.

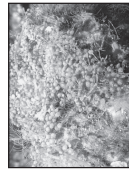
The algae in the ocean are responsible for more than half of all the oxygen we breathe today. Some experts believe they may have produced as much as 85 percent of the oxygen in our atmosphere.

These red algae are a type of seaweed from the waters off of Hawaii.



Photo by Eric Osterman

This green grape algae grows in the Gulf of Mexico.



Trapping carbon dioxide

Algae also help our atmosphere by trapping carbon dioxide and taking it out of the air. Carbon dioxide is poisonous to people and animals. It also traps the heat in our atmosphere, warming the planet.

Plants also take carbon dioxide from the atmosphere. When plants are burned or they decay, they release the carbon dioxide they had pulled in. In some cases, it may take 100 years for the carbon dioxide to return to the atmosphere.

But after algae die, their trapped carbon dioxide sinks to the bottom of the ocean. It could be 1 million years before it returns to our atmosphere. This helps slow global warming.



Dining on algae

Algae are a super-important food source. Sea animals, from tiny one-celled zooplankton to giant whales, all depend on algae for most of their food.

Humans eat algae too. Seaweed, a type of algae, is an important part of Asian food. It is in everything from bread to sushi.

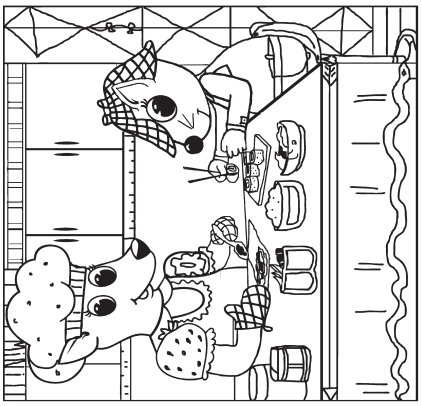
You may be eating algae without realizing it. Kelp and other types of algae are used as thickeners in foods such as cheese, pudding, chocolate milk, orange juice and soup. Algae keep ice cream smooth and help get rid of ice crystals. They can also be found in products such as toothpaste and pet food.

Check the ingredient list on some of the foods in your house. If you see "agar," "alginate" or "carrageenan," it means there are algae in the product.

Mini Spy ...

Mini Spy and Rookie Cookie are making and enjoying sushi. See if you can find:

- snake
- muffin
- kite
- banana
- letter B
- letter D
- strawberry
- letter H
- ruler
- ladder
- arrow
- word MINI
- pencil
- bell



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Rookie Cookie's Recipe Crunchy Edamame

You'll need:

- 1 (16-ounce) bag frozen shelled edamame (soybeans)
- 1 tablespoon olive oil
- 1 tablespoon fresh lemon juice
- 1/2 cup grated parmesan cheese
- salt and pepper to taste

What to do:

1. Thaw frozen edamame by rinsing with cold water in a large colander.
2. Dry edamame with paper towels; place in a 9-by-13-inch baking dish.
3. Blend olive oil with lemon juice; pour over edamame.
4. Sprinkle cheese evenly over the soybeans; salt and pepper to taste.
5. Bake in a 400-degree oven for 15 minutes until cheese melts.

You will need an adult's help with this recipe.

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Meet Tim Burton



Tim Burton is a writer, director and producer. He recently remade an early film of his, the Disney movie "Frankenweenie." Tim is a fan of horror movies, including "Charlie and the Chocolate Factory," "Mane Attacks" and the remake of "The Planet of the Apes." He co-wrote and produced "The Nightmare Before Christmas."

Tim, 57, was born in Burbank, Calif. He liked to draw cartoons when he was a child and won a prize for a poster he drew against littering when he was in the ninth grade. He went to a college of art and majored in animation. He was hired as an animator by Disney right after college and helped animate movies such as "The Fox and the Hound" and "The Black Cauldron."

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Ready Resources

The Mini Page provides ideas for websites, books or other resources that will help you learn more about this week's topics.

On the Web:

- sciencenewsforkids.org/2010/05/the-algae-invasion-2
- seaweed.ie
- youtube.com/watch?v=JYB529hDP1
- dailymotion.com/video/x5hxin_jean-michel-cousteau-ocean-adventure_tech

At the library:

- "Life in a Kelp Forest" by Mary Jo Rhodes and David Hall
- "Beneath the Waves: Exploring the Hidden World of the Kelp Forest" by Norbert Wu

Algae

Words that remind us of algae are hidden in the block below. Some words are hidden backward or diagonally. See if you can find: AIR, ATMOSPHERE, BLUE, CARBON, CELL, CORAL, DIATOM, DIOXIDE, FERTILIZER, FOOD, FUEL, KELP, LIGHT, ONE, ORGANISM, OXYGEN, PLANKTON, RED, SEA, SEAWEED, SEWAGE, SUN, TIDE, WATER.

ALGAE ARE SMALL BUT MIGHTY!



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Algae ARE SMALL BUT MIGHTY!

C D E F A G H I J K
E F F E G A W E R T H G I L
R O L L O V L A R O C P L E K
G A N L O D D E R A E S N U S
A I N K E M E D A W E I X O L D
I N O B R A C T A W O T K N A L P
S E U L B E R E H P S O M T A F
M L E U F R E Z I L I T R E F

Gus Goodsport's Report

Supersport: Maurice Jones-Drew
Height: 5-7 Weight: 210 Hometown: Antioch, Calif.
Forget his height. Measure Maurice Jones-Drew by his might.

Darting, dashing and smashing, the Jacksonville Jaguars' stocky running back has wrecked opposing defenses the last few years. He led the NFL in rushing last season with a career-best 1,066 yards and earned All-Pro honors for the third time.

A star at UCLA in college, Jones-Drew gets around off the field as well. He has played a role on a television comedy. He also hosts a radio show and has been supportive of multiple charities. Now, with another season under way, he's back on the field, ready to rumble again.

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Mini Jokes

All the following jokes have something in common. Can you guess the common theme or category?

Stanley: Where do spooky creatures go to learn?
Susan: A s-ghoul!

Sam: What do future bankers love about circle time at school?
Stuart: Show and tell!

Sunny: What is a thermometer's purpose at school?
Steve: To earn a degree!

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